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Collection of Insect Samples		
Revision: #3	**Replaces: 4/4/02 version**	**Effective: 2/13/03**

1. Purpose and Scope: Insect samples are usually collected to measure the amount of pesticides present on or in insects which have succumbed to a pesticide treatment. If pesticide residues in dead or moribund insects are high enough, there might be concern for indirect intoxication of animals that feed on these insects. The environmental monitoring plan (EMP) might call for measuring the effect of pesticide treatments on non-target insect populations. This type of monitoring would require the systematic collection of live insects. However, if the EMP calls for conducting insect population studies, this type of work would likely be contracted out. Therefore, this SOP only describes the collection of dead or moribund insects. The EMP for a program will specify the types of insects to collect (e.g., target insects such as grasshoppers collected for a grasshopper control program or non-target insects such as avian dietary items found under the drip-line of a citrus tree having received a drench treatment for a fruitfly eradication program). The EMP will also specify where and when to collect insect samples. Any instructions on insect sampling and documentation found in the EMP for the Program under study, supersedes instructions contained in this SOP.

2. Supplies Required: To request sampling equipment and other supplies required to collect insect samples, contact the Laboratory Supplies Coordinator at the APHIS Analytical and Natural Products Chemistry Laboratory (ANPCL), in Gulfport, MS at (228) 822-3106, or 822-3134 (for address see SOP EM - 17, *Packaging and Shipping of Samples*).

2.1 tweezers (fine, lightweight forceps are most effective)

2.2 4" x 4" resealable plastic bags

2.3 field log book

2.4 ice chest with wet, dry or reusable ice packs (obtain locally)

2.5 baby wipes

2.6 indelible marker

2.7 disposable gloves

3. Collecting Dead or Moribund Insect Samples: Wear disposable gloves.

3.1 using forceps, remove an insect specimen from the ground, hive, plant surface or

water body

3.2 place the specimen in a 4" x 4" resealable plastic bag

3.3 repeat steps 3.1 and 3.2 until at least 10 grams (about a handful) of the desired species or the amount of specimens specified in the EMP are collected. This is considered one sample

3.4 seal the bag and label with the indelible marker by writing a code that will allow the sample to be matched with its documentation

3.5 clean the forceps between samples by wiping with fresh baby wipes

3.6 place bags containing the samples into an ice chest to keep it chilled until it can be transported from the field and placed in a freezer.

4. Documentation:

4.1 record observations in the field log book (see SOP EM - 12, *Using a Field Log Book*). Include a sketch showing the location of the sample collection site and its relation to the treatment site and any sensitive area that might be near by. A topographical map or aerial photograph annotated with the required information should be provided if possible as well as photographs or a video of the sample collection site. Be sure to record the abundance of the dead or moribund insects (e.g., number of dead insects per square foot)

4.2 complete an APHIS Form 2060 for each insect sample (see SOP EM - 13, *Taking Measurements for the APHIS 2060 Form*). Retain the pink copy for your records and distribute the remaining copies as specified in the EMP.

5. Packaging and Shipping:

5.1 Package and ship the insect samples as described in SOP EM - 17, *Packaging and Shipping of Samples*.